# IN THE

# UNITED STATES PATENT AND TRADEMARK OFFICE

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| **APPLICANT:** | Yoram Nelken |
| **SERIAL NO:** | 10/008,152 |
| **FILED:** | December 4, 2001 |
| **TITLE:** | System and Method for Automatic Task Prioritization |
| **EXAMINER:** | Unknown |
| **ART UNIT:** | 2163 |
| **CONFIRM. NO.:** | 3645 |
| **ATTY. DKT. NO.:** | PA2325US |

## CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date printed below:

Date: 12/2/2002

_Wendi R. Schepler_
Wendi R. Schepler

COMMISSIONER FOR PATENTS
WASHINGTON, DC 20231

## REQUEST FOR RECONSIDERATION OF PETITION TO MAKE SPECIAL

In a Decision on Petition for Accelerated Examination under M.P.E.P. § 708.02 (VIII) mailed October 4, 2002 (Paper No. 7), the Special Programs Examiner dismissed the Petition to Make Special filed on August 16, 2002. The Examiner stated that the Detailed Discussion of the References is deficient in that it merely provides a brief synopsis of each reference accompanied by a statement that the particular reference does not include the features of the claimed

invention. Applicant respectfully requests reconsideration of the decision on the Petition to Make Special.

The above-referenced patent application is a continuation of U.S. Patent Application No. 09/602,588, now U.S. Patent No. 6,408,277 ("the parent application"). A Petition to Make Special was filed in the parent application, citing many of the references cited in the present Petition. In fact, the detailed discussion of the first twenty-five references in the present Petition is substantially identical to the detailed discussion of the references that accompanied the Petition in the parent application. The detailed discussion that accompanied the Petition in the parent application met the requirements of M.P.E.P. § 708.02 (VIII) as stated in the notice granting the Petition. Enclosed is a copy of the detailed discussion of references filed in the parent application and a copy of the decision granting that Petition.

In the present application, an updated prior art search was conducted and a detailed discussion of the resulting references was included with the Petition, in addition to the detailed discussion of the references from the parent application. The detailed discussion of the references included with the present Petition discusses each reference in sufficient detail to distinguish it from Applicant's claimed invention. The level of detail of the discussion corresponds to the level of detail of the discussion in the Petition filed in the parent application, which was found to satisfy the requirements under § 708.02 (VIII).

Applicant respectfully submits that the Petition to Make Special is not deficient and respectfully requests that the Petition to Make Special be granted and the examination of the application be accelerated.

Respectfully submitted,

Yoram Nelken

Dated: _12/2/2002_    By: _Wendi R Schepler_

Wendi R. Schepler, Reg. No. 43,091
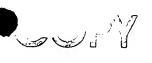Carr & Ferrell, LLP
2225 East Bayshore Road, Suite 200
Palo Alto, CA 94303
Tel: (650) 812-3451
Fax: (650) 812-3444

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Paper No. 3

Wendi R. Schepler
Carr & Ferrell LLP
Suite 200
225 East Bayshore Road
Palo Alto, California 94303

| | | |
|---|---|---|
| In re Application of: Yoram Nelken | ) | DECISION ON PETITION FOR |
| Application No. 09/602,588 | ) | ACCELERATED |
| Filed: June 21, 2000 | ) | EXAMINATION UNDER |
| For: SYSTEM AND METHOD FOR | ) | M.P.E.P. §708.02(VIII) |
| AUTOMATIC TASK | ) | |
| PRIORITIZATION | ) | |

This is a decision on the revised petition, filed October 10, 2000 under 37 C.F.R. §1.102(d) and M.P.E.P. §708.02(VIII): Accelerated Examination, to make the above-identified application special.

M.P.E.P. §708.02, Section VIII which sets out the prerequisites for a grantable petition for Accelerated Examination under 37 C.F.R. §1.102(d) states in relevant part:

A new application (one which has not received any examination by the examiner) may be granted special status provided that applicant (and this term includes applicant's attorney or agent) complies with each of the following items:

(a) Submits a petition to make special accompanied by the fee set forth in 37 CFR 1.17(i);

(b) Presents all claims directed to a single invention, ...

(c) Submits a statement(s) that a pre - examination search was made, listing the field of search by class and subclass, publication, Chemical Abstracts, foreign patents, etc. A search made by a foreign patent office satisfies this requirement;

(d) Submits one copy each of the references deemed most closely related to the subject matter encompassed by the claims if said references are not already of record; and

(e) Submits a detailed discussion of the references, which discussion points out, with the particularity required by 37 CFR 1.111(b) and (c), how the claimed subject matter is patentable over the references.

Serial No. 09/602,588
Decision on Petition to Make Special

Applicant's submission meets all the criteria set out above, accordingly, the Petition is **GRANTED**.

The application file is being forwarded to the Examiner of Record for accelerated examination according to the procedures set forth in M.P.E.P. §708.02, Section VIII.
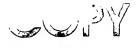

Pinchus M. Laufer
Special Programs Examiner
Technology Center 2100
Computer Architecture, Software, and Electronic Commerce
(703) 306-4160

# IN THE

## UNITED STATES PATENT AND TRADEMARK OFFICE

| | |
|---|---|
| APPLICANT: | Yoram Nelken |
| SERIAL NO: | 09/602,588 |
| FILED: | June 21, 2000 |
| TITLE: | System and Method for Automatic Task Prioritization |
| EXAMINER: | Unknown |
| ART UNIT: | 2761 |
| ATTY. DKT. NO: | PA1477 |

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### CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231, on the date printed below:

Date: _10/4/2000_                     _Wendi R. Schepler_
                                            Wendi R. Schepler

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Assistant Commissioner for Patents
Washington, DC  20231

## DETAILED DISCUSSION OF THE REFERENCES ACCOMPANYING

## PETITION TO MAKE SPECIAL

Dear Sir:

In support of the Petition to Make Special, a detailed discussion of the references cited in the Information Disclosure Statement, mailed September 29, 2000, follows:

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**U.S. Patent No. 5,068,789**

Issued: Nov. 26, 1991

Title: Method and Means for Grammatically Processing a Natural Language Sentence

Inventor: van Vliembergen

Detailed Discussion:

This patent discloses a method of parsing sentences into constituent parts. The parts are tested against rules to determine the meaning of each sentence. Using the results of natural language processing to assign a priority to a communication, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,321,608**

Issued: Jun. 14, 1994

Title: Method and System for Processing Natural Language

Inventors: Namba et al.

Detailed Discussion:

This patent discloses a method for processing natural language into operational commands for a computer system. The method allows a person to give instructions to a computer without using a special language or commands defined for the computer. Using the results of natural language processing to assign a priority to a communication, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,878,385**

Issued: Mar. 2, 1999

Title: Method and Apparatus for Universal Parsing of Language

Inventors: Bralich et al.

Detailed Discussion:

This patent discloses a method for syntactical parsing of input strings of natural language text. The method performs a dictionary look-up for each word in the string and attaches selected words in the string to a preceding word according to selection rules. Using the results of natural language processing to assign a priority to a communication, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,25,131**

Issued: Oct. 5, 1993

Title: Classification of Data Records by Comparison of Records to a Training Database Using Probability Weights

Inventors: Masand et al.

Detailed Discussion:

This patent discloses a system for classifying natural language data using a training database containing training records. Features extracted from natural language input are used to query the training records to determine probability weights of training records with matching features. Further processing determines which training records most probably match the record of the natural language input. Using the results of natural language processing to assign a priority to a communication, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,761,631**

Issued: Jun. 2, 1998

Title: Parsing Method and System for Natural Language Processing

Inventor: Nasukawa

Detailed Discussion:

This patent discloses a process by which a grammatically incorrect sentence, which cannot be parsed by a conventional parsing process, is analyzed using context information, specifically parsing results for an identical word row in a sentence that could be parsed. Using the results of natural language processing to assign a priority to a communication, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,687,384**

Issued: Nov. 11, 1997

Title: Parsing System

Inventor: Nagase

Detailed Discussion:

This patent discloses a system for parsing natural language. An input sentence is morphologically analyzed by comparison with a language-specific dictionary. A parsing unit applies context-free grammatical rules to the input sentence. The parsing results are stored in an analysis table unit. Using the results of natural language processing to assign a priority to a communication, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,099,425**

Issued: Mar. 24, 1992

Title: Method and Apparatus for Analyzing the Semantics and Syntax of a Sentence or a Phrase

Inventors: Kanno: Yuji et al.

Detailed Discussion:

This patent discloses a method for proofreading Japanese text and analyzing English sentences. The method analyzes the semantics and syntax of text to correct errors. The method may also include morphological analysis. Using the results of natural language processing to assign a priority to a communication, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,101,349**

Issued: Mar. 31, 1992

Title: Natural Language Processing System

Inventors: Tokuume et al.

Detailed Discussion:

This patent discloses a system for generating natural language sentences. The system uses grammatical rules that include a phrase structure part, a semantic part, a condition part, and a message part. The system applies a grammatical rule to generate a phrase structure for a sentence and then generates a sentence in accordance with the phrase structure. Using the results of natural language processing to assign a priority to a communication, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,371,807**

Issued: Dec. 6, 1994

Title: Method and Apparatus for Text Classification

Inventors: Register et al.

Detailed Discussion:

This patent discloses a system for classifying natural language text. The system first parses text into recognized keywords, then uses the keywords to deduce further facts from the text. The facts from the text are compared to categories in a knowledge base to determine which categories are most similar to the text. Rules may be used to further refine the determination of which categories are most similar to the text. Using the results of natural language processing to assign a priority to a communication, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,542,088**

Issued: Jul. 30, 1996

Title: Method and Apparatus for Enabling Control of Task Execution

Inventors: Jennings, Jr. et al.

Detailed Discussion:

This patent discloses a system that allows a user to control priorities assigned to tasks to be performed by a computer. Whenever the user requests a task, the system calculates whether the task will take more time than a user tolerance. If so, the user is presented with a choice of canceling the task or assigning it to a background manager, which then handles the execution of the task. If the task requires less time, it is performed immediately. The user may rearrange the tasks in the background manager. A system that automatically assigns priority to a task received by a contact center, as claimed by the Applicant, is not disclosed or taught by this patent. Also, storing tasks in a

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queue according to priority without user interaction, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 4,642,756**

Issued: Feb. 10, 1987

Title: Method and Apparatus for Scheduling the Execution of Multiple Processing Tasks in a Computer System

Inventor: Sherrod

Detailed Discussion:

This patent discloses system that schedules tasks to be executed by a central processing unit of a computer. Tasks have pre-assigned external priorities and internal priorities assigned by the computer according to a state of the task. The order in which tasks are executed may be changed when the state of a task changes. A contact center configured to receive tasks, including tasks expressed in natural language, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 3,648,253**

Issued: Mar. 7, 1972

Title: Program Scheduler for Processing Systems

Inventors: Mullery et al.

Detailed Discussion:

This patent discloses a program scheduler that receives tasks to be executed by a multiprocessor system. Each task has an associated service ratio of the time required for a task to be processed to the time remaining before the task must be completed. The service ratio indicates the need of each task for service from a processor. A contact center configured to receive tasks, including tasks

expressed in natural language, as claimed by the Applicant, is not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 4,286,322**

Issued: Aug. 25, 1981

Title: Task Handling Apparatus

Inventors: Hoffman et al.

Detailed Discussion:

This patent discloses a task handling apparatus for a computer system that includes task dispatching queues. Task dispatching takes place on a priority basis out of the dispatching queues. A contact center configured to receive tasks and a decision engine for determining a priority code for each task, as claimed by the Applicant, are not taught or disclosed by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 4,805,107**

Issued: Feb. 14, 1989

Title: Task Scheduler for a Fault Tolerant Multiple Node Processing System

Inventors: Kieckhafer et al.

Detailed Discussion:

This patent discloses a system for scheduling tasks to be performed by multiple processors such that if one processor fails tasks will be rescheduled to another processor. Tasks are stored in a list in their preferred order of execution. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 4,814,974**

Issued: Mar. 21, 1989

Title: Programmable Memory-Based Arbitration System For Implementing Fixed and Flexible Priority Arrangements

Inventors: Narayanan et al.

Detailed Discussion:

This patent discloses a system for controlling concurrent access by devices to shared resources in a computer system such a memory devices, input/output devices, and buses. The system includes a memory having storage segments that correspond to unique priority levels. Identifications of devices are stored in storage segments such that each device is associated with a priority level. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,210,872**

Issued: May 11, 1993

Title: Critical Task Scheduling for Real-Time Systems

Inventors: Ferguson et al.

Detailed Discussion:

This patent discloses a method for scheduling tasks in a real-time computer system such that non-critical tasks do not prevent the timely execution of critical tasks. Each task is evaluated in terms of its consumption of a resource, and will stop being processed if it consumes more than its quota. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

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**U.S. Patent No. 5,230,054**

Issued: Jul. 20, 1993

Title: Priority Order Judging Device

Inventor: Tamura

Detailed Discussion:

This patent discloses a hardware circuit for judging the priority order of priority-coded signals without the use of encoders or decoders. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,247,677**

Issued: Sep. 21, 1993

Title: Stochastic Priority-Based Task Scheduler

Inventors: Welland et al.

Detailed Discussion:

This patent discloses a scheduler that selects tasks for execution by a computer system on the basis of a random number weighted by task priority. Exemplary tasks are batch processing jobs and users on a time-sharing system. In this patent, every task has a nonzero probability of being selected to execution, that is all tasks have a chance of being selected, such that low priority tasks are not locked out. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,325,526**

Issued: Jun. 28, 1994

Title: Task Scheduling in a Multicomputer System

Inventors: Cameron et al.

Detailed Discussion:

This patent discloses a system for hierarchically linking application programs, layers, and partitions together to provide an optimal order of execution of tasks in a multi-computer system. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.


**U.S. Patent No. 5,437,032**

Issued: Jul. 25, 1995

Title: Task Scheduler for a Multiprocessor System

Inventors: Wolf et al.

Detailed Discussion:

This patent discloses method for scheduling tasks performed by a multiprocessor system where task are prioritized by comparing a desired level of concurrent task activity and the actual level of concurrent task activity. Tasks may be prioritized externally or prioritized according to estimated completion time. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,526,521**

Issued: Jun. 11, 1996

Title: Method and System for Process Scheduling from Within a Current Context and Switching Contexts Only When the Next Scheduled Context is Different

Inventors: Fitch et al.

Detailed Discussion:

This patent discloses a scheduling method that prevents a context switch when it would likely be redundant. Process scheduling is divided into an evaluation function, which determines whether a context switch is needed, and a context switcher. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.


**U.S. Patent No. 5,630,128**

Issued: May 13, 1997

Title: Controlled Scheduling of Program Threads in a Multitasking Operating System

Inventors: Farrell et al.

Detailed Discussion:

This patent discloses a multitasking operating system that allows application programs to influence the schedule of execution of program threads by specifying parameters for the program threads. The operating system uses these parameters to schedule program threads for execution, selecting the highest priority program thread available from each dispatch class for execution by a processor. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,636,124**

Issued: Jun. 3, 1997

Title: Multitasking Industrial Controller

Inventors: Rischar et al.

Detailed Discussion:

This patent discloses a real-time control system that integrates both periodic and event-driven tasks so that each type of task may be implemented through programming. A programmer inputs priority information for each task to the system. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,745,736**

Issued: Apr. 28, 1998

Title: Information Processing System Wherein Processing Tasks are Prioritized and Performed in Order of Priority

Inventor: Picart

Detailed Discussion:

This patent discloses a processing system in a modem that processes tasks, such as a transmission task that modulates digital data by a carrier signal, in order of a pre-established priority. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

**U.S. Patent No. 5,944,778**

Issued: Aug. 31, 1999

Title: Periodic Process Scheduling Method

Inventors: Takeuchi et al.

Detailed Discussion:

This patent discloses a method for scheduling the waking and sleeping of tasks for processing continuous media data such as video. A contact center configured to receive tasks and a decision module configured to determine the priority of each task, as claimed by the Applicant, are not disclosed or taught by this patent. Therefore, Applicant's claimed invention is distinguishable over this reference.

Respectfully submitted,

Yoram Nelken

Dated: _10/4/2000_       By: _Wendi R Schepler_

Wendi R. Schepler, Reg. No. 43,091
Carr & Ferrell, LLP
2225 East Bayshore Road, Suite 200
Palo Alto, CA 94303
Tel: (650) 812-3451
Fax: (650) 812-3444